

Lead-containing blankets offered for sale for use with autistic children

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Abstract

This is a transcription of a special *Autism One Radio* program aired on December 19, 2007 concerning lead-containing blankets offered for sale for use with autistic children. If you or anyone you know has purchased or been given what is supposed to be a weighted therapy blanket or vest, this is information you need to hear. Terri Arranga, the host, interviews parent, Lois Smith; Kevin McNeill, Lead-Based Paint Inspector & Risk Assessor, St. Clair County Health Department, Michigan; Sharon Hudson, Coordinator, Childhood Lead Poisoning Prevention Program, Michigan Department of Community Health and Richard Leiker, Section Manager for Environmental Toxicology in the Public Health Division in Portland, Oregon.

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I'd like to introduce this topic by quoting two excerpts that I found in an article on e-medicine from a Dr. Steven Marcus: "In children, virtually no organ system is immune to the effects of lead poisoning. Perhaps the organ of most concern is the developing brain. Any disorganizing influence that affects an individual at a critical time in development is likely to have long-lasting effects." And, "The effects of lead poisoning on the brain are manifold and include delayed or reversed development, permanent learning disabilities, seizures, coma, and even death."

We begin our program today with parent, Lois Smith, who was sold a lead-containing blanket for her five-year-old autistic daughter, Toni Marie. This was suggested to her directly by a representative of the company, Shielding International, of Madras, Oregon, and sold to her via the distributor whose contact information Shielding International gave Lois.

Lois Smith, what led you in the first place to call Shielding International?

Well, when my daughter, Toni Marie, was 18 months old, she was diagnosed with speech and cognitive delays. An occupational therapist was sent to our home and soon after gave us what we thought was a weighted therapy vest. Pretty quickly afterwards, Toni Marie's health and functioning worsened; she developed gastrointestinal distress and loss of all of her speech.

We had used the vest for a month here, during which time Toni Marie made no gains and regressed. We stopped using the vest in October of 2005 due to Toni Marie swinging it, and the occupational therapist that had brought it had moved away. Within three weeks, Toni Marie's language started coming back and the gastrointestinal symptoms began to resolve themselves, so I started to investigate lead, thinking it might be our old bathtub.

And when the lead inspector came to our home, he found the discarded vest. He tested it, and he was aghast at the level of lead, informing me that it was not a weighted therapy vest, but

that it was a dental vest. Toni Marie and the vest were both tested, and Toni Marie had high levels of antimony and cadmium and bismuth – all of which are used as flame retardants on the foam backing of the vest, and these correlated with levels on the vest.

I was in contact with Dr. Lou of Cook County Hospital in Chicago at that time, and continued contact with her through this autumn. We were discussing the application of flame retardants and this prompted me to call manufacturers of dental shielding. The only manufacturer that I could find, however, that used the foam backing was Shielding International of Madras, Oregon.

All right, now, Lois, was Toni Marie diagnosed with autism after use of that alleged weighted therapy vest that turned out to be a dental vest that was treated with the antimony, bismuth and cadmium?

Correct. She was diagnosed after her exposure with the vest had started.

Okay, and could you reiterate just what kind of dramatic improvement she experienced after ceasing use of the vest? It was quick and dramatic?

It was. Within three weeks, we started to get language, where we had been through a year and a half of ongoing speech therapy. We were seeking private therapy and also therapy in the home, and we had not gotten one word from Toni. We couldn't even get her to say "mama," and within three weeks of not using the vest, she said "mama." And at that point, her language just started to build, and at the same time, we noticed that she didn't appear as ill. She was eating new foods. She was coming out of her shell.

Okay. That's marvelous, and I want to be very careful. You've told us what led you to call Shielding International. I

want to be very careful, Lois, to verify that your original call about Shielding International product was made to the manufacturer, Shielding International of Madras, Oregon, not estate distributors of theirs. Is that correct?

That's correct, Teri. It was the parent company, not a distributor.

Now, Lois, what month was this during this year that you called the manufacturer, Shielding International?

This was during October.

Please tell us about that call. What did you inquire about, and what was said to you?

Well, I began to inquire about the flame retardants that were used on their products and the process that was used to apply them. When I asked if there was something that was an after-market treatment that the flame retardant was sprayed on the product or was it something that was incorporated into the foam, the woman asked me why I wanted this information. I went to explain that I had a daughter that had been diagnosed as autistic.

And as soon as she heard the word "autistic," she cut me off and said, "You have an autistic and you want a leaded blanket?" It was never questioned on her part, so I asked her if they actually sold lead blankets to autistic children, to which she said that they did. And I asked her if she worried about poisoning autistic children with these blankets, and she stated that, "No, autistic children don't eat them." I was pretty amazed that they sold this kind of a product.

Did she mention for what purpose people were obtaining these lead-containing blankets for autistic children?

Yes, for weighted therapy.

Lois, did it sound from the speed or demeanor in which they suggested this offer to you that this was the first time they had said such a thing?

Actually, no. During the conversation when I had explained to her that autistic children – a large number of them suffer from pica and that children – autistic children actually might eat these blankets, she told me that they had not had any complaints yet. This led me to believe that this was an ongoing thing, that there are complaints that could've been given, and obviously, there have been blankets that have been sold in this manner.

So, am I correct in saying that this representative of the manufacturer, Shielding International, suggested to you the purchase of a lead-containing blanket for your five-year-old autistic daughter, Toni Marie?

Yes.

Did she know at that time your daughter was five years old?

Yes.

Okay.

I had explained to her the situation: my daughter was five years old and had been diagnosed as autistic. So she was fully aware that it was a small child.

So, at that time you did not accept the lead blanket – you didn't say that you wanted to purchase one?

No. I was pretty aghast at the fact that they were selling them, and I in no way thought of purchasing one.

But, you called back the next day?

I did. I laid there that night, and I just could not sleep for the fact that there were other children out there that were sleeping with lead-filled blankets, and I just thought it might be a good item to order and eventually have tested to see if it was dangerous.

And when you called back, what was her response? What did you say to her, and was she happy?

She was. I had called back the next day. The same woman answered the phone, and I explained to her that I had thought about it and that I did want to order a leaded blanket for my autistic child, and she said, "Good. Well, what color would you like?" That was her first question to me, and during the phone call, we decided on the color. We decided upon the weight. She asked what size I would like it, and I asked her what size most people requested.

And even though most people call and request a blanket, I had wanted to go smaller since I didn't plan on using this as a blanket, and I asked to have to have a lap pad made. And so, we went over how much weight I would like it to contain, which we then decided was point five moles of lead. At that point, when we had all the basics worked out, she gave me the number of the distributor and asked me to please call there and finalize my order.

Now, you mentioned to her, did you not, that you were going to fold the blanket?

When we were discussing the fact that I actually wanted a lap pad and we were discussing the weight, I said that what I would like to do is order it twice as long, and that way on the days when I felt that I needed more weight for my child, I would fold it in half and that would double up the weight. She told me that sounded like a good idea.

This even contradicts the piece of paper they send with the blanket, correct?

Exactly, and not only that, when you look at the product itself, it would be very hard not to have this product fold over on itself just during the normal or recommended use.

Lois, could you please explain to our listeners why this is an important point about folding or not folding a lead-containing blanket?

Well, when you go into the dentist office, you always find that the dentist shielding is either draped or hung. The reason for that is folding the item will cause the lead to break down. It will cause it to degrade quicker, and that will lead to lead dust.

So, you called Shielding's distributor in Michigan. Did you tell them why you wanted the blanket? Were they surprised at the nature of the request?

Actually, I called them and stated that I had spoken with Shielding International and that I had decided to order a lead blanket for my five-year-old, autistic child and that I had already worked out the measurements and how many moles thick. And the woman asked me to please fax her something. I'm showing specs of what I'd like to order, and I told her I didn't have a fax machine. And so, she agreed to take the order over the phone, and I was waiting for, at some point, for her to say, "Wait, you want this for an autistic child?" But, she didn't give it a moment's pause.

Okay, so she didn't seem surprised at the nature of the request?

Not at all.

Do you feel at liberty to disclose the city that this distributor is in, or do you know?

They're in Grand Rapids, Michigan.

Okay, and you told them that you intended to fold it?

Exactly.

Okay. What's a ballpark cost of these blankets? Is it in the hundreds of dollars, high, low?

The price varies from a couple hundred dollars all the way up to \$500.00 or \$600.00. It depends on how large you'd like it and how many moles thick you'd like the lead inside.

What month did you receive the blanket, Lois?

I received it in November.

And can you tell us about the blanket that you received – how it was folded, how it was stitched? And what is the lead-containing material?

Well, the package—the vest or the blanket—was wrapped around a cardboard insert inside the package, which I found to

be odd considering you're not supposed to fold them per the instructions. And when the pad was opened, of course, it was hot pink, as I had ordered it. And the stitching – it's kind of odd, because the stitching goes right through the lead that's inside. I imagine that they do that so that the weight doesn't shift or that the lead sheeting that's inside doesn't shift.

What is the lead-containing material?

You know, I honestly don't have any idea. I'm thinking that it's a lead powder that's infused into rubber and then made into thin lead sheets.

Okay, so "lead equivalent" is what you said was on the tag?

Right.

And that's actually lead-containing material?

Right, and to a layman that would be quite misleading, because you're thinking something like sugar equivalent or some kind of a sweetener that's not actually sugar. I would've thought "lead equivalent" was not lead. But, lead equivalent actually meant lead powder in rubber that's placed inside these items.

Well, that's kind of coincidence that you were comparing it to sweetener, because lead is very sweet and appealing to children, isn't it?

Exactly. With autistic children, or with any children, I guess one of the major things that cause children to eat lead paint chips is the fact that they have a sweet flavor. So, this vest, in turn, would, having such a high lead content, would actually be sweet to a child.

Who was the first person who tested the package from the outside of the package, and what was the result?

Well, when I received the package, I called the inspector that had come previously to inspect my home. The inspector was going to be in the neighboring city that day, so I drove to that city to meet with the inspector. He put the XRF on the outside of the package, testing it without opening it. He said that it obviously had extremely high levels of lead, which surprised him.

What does XRF stand for for our listeners? Is that x-ray fluorescents?

Yes. It's a machine that tests the lead content within an item.

Who was the second person who tested the package, this time the product on the inside, and what did they find and say?

I had taken the unopened package then to the Port Huron Health Department to Kevin McNeill, who opened the package, took the blanket out, and tested it with the XRF and with dust

wipes. I think he was pretty shocked that such an item would be sold for use by children.

Finally, Lois, could you please share your concerns about this, especially in light of a significant percentage of autistic children having pica, which involves mouthing, chewing and eating non-food objects, and in view of pets clawing items such as this and damaging the covering, with regard to how much time an autistic child might be spending in contact with this product, and in light of autistic children and seizures?

Well, a huge concern was that when I was in contact with Shielding and with their distributors, at no time did anyone say that there were dangers related to the use of this product with children, and the fact that a large majority of autistic children suffer from pica, where they eat non-food items. If a child did compromise the outside covering, they would have access to massive amounts of lead, which would lead to a symptomatic lead poisoning.

And with the symptoms of such poisoning being gastrointestinal distress, which you know a lot of our children suffer from anyways, or if they develop seizures, taking them to the emergency room, they may be diagnosed as having gastroenteritis rather than having symptomatic lead poisoning. On top of that, if there are pets in homes, a fear would be that a pet would chew on the corner of this blanket. With the parent not understanding that this is a dangerous, toxic item, they might, in some way, try to repair this item rather than dispose of it.

Now, from your previous experience with the dental vest, Lois, you had related that you had two cats who used to cuddle on the discarded vest under the bed. They also clawed it and died of kidney failure while your third cat, who had no contact with the vest, survived.

Exactly. We had two cats that were always underneath the bed where they slept. Their front claws had been de-clawed, but they had their back claws. When the vest was brought out from underneath the bed, there were little pinholes in it where the cats had dug their back claws into this vest. These cats died within a few weeks from kidney failure after we had ran every test possible with the vet—from feline leukemia to feline AIDS, as well as all kinds of tests that all came back negative.

That leads us to question not only how safe this is for children, but how safe it is for pets. If a pet somehow corrupts it, this is going to contaminate your entire home as well as your child.

That's right. Well, Kevin McNeill, let's talk now with you. To remind our listeners, you hold the position of lead-based paint inspector and risk assessor with the St. Clair County Health Department in Michigan. Has Lois given us a verbal report consistent with what you found and said?

Yes, she did.

Okay. Could you please tell us in your own words what you tested, the method by which the testing is done, and what the results were?

Sure. On November 15th, she presented the blanket here sealed up in its original mailing container unopened, and we tested it from the exterior with an XRF machine, which is an x-ray fluorescence machine which tests for the presence of lead. We tested through the packing material, and we got a very high result. We then proceeded to open the package and laid it out on a conference table and tested the material directly, and, again, got a very high result.

All right, first of all, are you allowed to tell us what those results are? We do have that letter up on the Autism One Radio Website, but can you share that with us now?

Sure. The result that I got from testing it from outside the packaging came out as a result of 44.65 micrograms per square centimeter, and then when we tested it from the inside, we got 66.76 micrograms per square centimeter.

Yes, and weren't there some test results in the 160s or 240s?

Yes. What we did after we did the XRF analysis is we collected lead dust wipe samples, which basically tell us the amount of available contaminated lead dust on the surface of the weighted blanket, which if a child touches it or licks it, that material can be ingested rather quickly.

And we took a wipe sample from the center of the blanket, and got a result of 160 micrograms per square foot. Then we collected a sample along the sewn seam of the blanket, and got a result of 270 micrograms per square foot.

In your estimation, Mr. McNeill, what is the level of health risk that the product that parent, Lois Smith, was shipped would pose to an autistic child, or any child?

It would pose a great risk to any child – autistic or otherwise.

Had you said something to the effect that it was like a giant Hershey bar?

In the effect that, like you said previously, lead is very sweet for children. And if you get a child chewing on that, whether it be an autistic child or any other child, it's going to be very sweet, almost tasting like candy, and it's going to be something they want to keep coming back to.

Yes. So, am I correct in saying that in your professional estimation this product posed an inordinate health risk to autistic children and children in general?

Yes, I would say so.

Would I be correct in saying that this product could be lethal?

Certainly.

Okay. In your judgment, Mr. McNeill, do you believe that this product needs to be recalled from any non-medically-related destination to which it was shipped, and that any parent who purchased or who received this product needs to be notified directly and quickly?

I would say yes.

I would like to thank you for your time. Do you have any closing comments? Please stay with us, but do you have any comments now that you'd like to share about anything we've not covered?

Not at this point. Lois Smith has done a tremendous job.

Yes, she has, and we'll now talk with Sharon Hudson who holds the position of coordinator, Childhood Lead Poisoning Prevention Program with the Michigan Department of Community Health. For our listeners' background, Miss Hudson also holds a degree as a registered nurse.

Miss Hudson, did you actually call the manufacturer, Shielding International, in Madras, Oregon, in November 2007?

I did after speaking with Lois Smith.

What was the date of that call?

It was early November. I don't have my notes in front of me, but it was early in the month.

All right. I'd like to confirm you spoke with a representative of the manufacturer, correct – not a distributor?

That's right, yes. I called Oregon.

Okay. What did you say to them, and what did they say to you?

Well, I told them that I was calling because I had a child who had autism, and I understood that they had leaded or therapeutic garments or products for sale. And she indicted that they did.

All right. Was there more?

I believe, Teri, that what she said was, "We make them, and we make them to your specification." I was interested in ascertaining that they were not recycling dental aprons for this purpose, and she assured me that they were not.

Oh, that's a very good point. Now, do I understand correctly, Miss Hudson, that they offer to fill a child's security blanket with lead-containing material, sew it up and send it back to you?

That's right. They told me to select two blankets and send them to the company and that they would construct a leaded blanket for my child out of the two blankets that I sent them.

So, you would send them two of your child's security blankets –

Blankets of a size that I wanted used for a therapeutic blanket.

Yes. Did it sound from the speed or demeanor in which they suggested this offer to you that this was the first time they'd said such a thing?

No, no, no. It was not as if it was an uncommon request at all. I mean, the individual I spoke to didn't ask a lot of questions and didn't seem puzzled or confused or anything of that sort, no.

And do you think, Miss Hudson, that a child security blanket is a durable material for holding lead-containing material?

No, she didn't say anything about durability. She just said two blankets.

I mean your opinion.

Two blankets and send them to us and we'll construct the leaded blanket that you want.

Okay, and I'm just asking now for your professional opinion. Do you think that a child security blanket is a durable material for holding lead-containing material?

Absolutely not. I don't think any child product that has lead in it is a good idea.

That's a very good point.

Look at all the toy recalls.

Right, exactly.

The point is that there is an alternative to using lead, whether it's lead-impregnated material, whether it's lead shot, whether it's sinkers. No matter what it is, there is an alternative that's non-toxic that can be used, and I would see no reason why a leaded product should be sold to any child.

Very good. You're right. So, you expressed your concern about the safety of this product to them, and did they assure you that it was safe?

Yes, she did, and then when I continued, and I think I referenced the toys that had been recalled, she said, "Well, if you're really concerned, talk to your doctor."

Now—and it seems ironic to me that the manufacturer said that they don't recycle dental vests—but they seem to have

known that these lead-containing blankets were going to be used with autistic children.

Yes. I said that right up front, that that was my purpose for requesting it.

Right. Now, has your agency distributed an Issue Paper, or what steps has your agency taken to disseminate information related to the situation?

Well, when Lois and I talked, it prompted a real investigation on my part that involved the Michigan Dental Association, and the Department of Education, because I wanted to find out how widespread this practice was. Once, a couple of years ago, we heard something about this in my program. And I contacted the Department of Education, and they said, “We know nothing about it. We don’t have an official position on it. We have no evidence that it’s going on.”

And so, then, earlier this fall when Lois called me, I began my calls to Michigan Dental Association and Department of Education, and so forth to try to determine whether these were dental aprons—dental shields that were being recycled or given to intermediate school districts or families, because I wanted to find out all the possible places that products could be coming from, including manufacturers. Also, I didn’t know what dentists were advised to do with the worn dental aprons.

We’ve mentioned toys, and we know that we hear a lot about recalls on toys that get widespread publicity because of lead. Do you think that we need to get information about this situation out on a national level?

Well, this is my plan, Teri. We went through various outlets and with various audiences in this state giving the advice to cease and desist and to turn in or dispose of any lead-bearing products for kids that they might have distributed in the past. I also intend to let the Centers for Disease Control know, but our Michigan Dental Association has already published in their electronic newsletter a warning about using dental aprons and dental shields for this purpose. And our next portal of distribution in this state will be through the Department of Education, the intermediate school districts, and the occupational therapists board.

Well, thank you so much for making these efforts to disseminate this information –

The other way that we’ll do outreach is through our local health department, through the health officers and through the medical directors of all our local health departments. So, I think we’ve pretty much identified all the audiences that might have some knowledge of children who might be using products that bear lead.

Well, thank you so much for pursuing this. Do you have anything you’d like to add at this time that we haven’t covered?

I don’t believe so.

Okay. We’re going to talk now with Richard Leiker, who holds the position of Section Manager for Environmental Toxicology in the Public Health Division in Portland, Oregon.

Mr. Leiker, please tell us about your office’s investigation of this matter. Did you call the manufacturer, Shielding International?

Well, the beginning of this is I received a call from Lois, and we discussed the issue, and then I subsequently called Sharon in Michigan, and we discussed the issue, also. And the testing results that were sent – that were done in Michigan, we received copies of those, so we had that information, and then after talking with Sharon, I contacted the manufacturer. I explained to them that I had received a call from a parent in Michigan and I’d also spoken with a person with the childhood lead program in Michigan.

And I wanted to know what their position was and what they were doing, and their response from – I believe it was the CEO of the corporation. I’m not positive of that, but the person I spoke with indicated that they didn’t directly sell items like that for that type of purpose, at least that’s what the person told me.

Okay, to reiterate, you believe you did call the manufacturer directly, Shielding International. You believe you spoke with the CEO, and you were told that they didn’t sell that product for that purpose directly. Did I restate what you said correctly?

That’s true. In other words, she was unaware that the products may have been sold for that type of purpose, and I explained to her that we considered use of items an issue that we were unaware of. But, thankfully, Lois brought it to our attention, and we did follow up on it with both the manufacturer and then also the various groups that deal with autism in the state of Oregon.

All right. Did the person who you believe may have been the CEO of Shielding International say anything—such as they didn’t know why or for what purpose their distributors ordered this product from the manufacturer?

The person indicated that they may not know why a particular distributor was ordering a product. That at times, products are shipped directly to a customer through a distributor, but they wouldn’t necessarily know what the purpose or the use of that product was going to be.

Now, Mr. Leiker, in your opinion, is what you were told by the manufacturer inconsistent with what Sharon Hudson and Lois Smith were told by the manufacturer?

Well, I have no way of knowing what the actual circumstances are, and I have no way of judging what people either knew or didn’t know about certain things. I mean various people have indicated in their statements what they had heard, and I’d have to believe what a person recalls what they said in a particular conversation, and at times, those recollections are going to be at odds.

Now, again, what has the manufacturer said that they will do?

Richard Leiker: Well, in talking with the manufacturer, I indicated that we were putting together an Issue Paper. It is actually the state of Michigan that put the Issue Paper together, and we certainly thanked them for doing that. We took that paper and adapted it specifically to the Oregon audience that we sent it to. Just in this last week, we sent the Issue Paper to our Department of Education, the people that coordinate the autism program with the Department of Education, and they indicated they will be sending that information out to all the programs throughout the state. We also sent it to our Health Sciences University Autism Program, and they are going to distribute the information through their clinics and all of their various contacts around the state.

But, this is what your agency is doing, right – not the manufacturer?

Richard Leiker: Well, no, I'm getting to what the manufacturer is doing. In addition, we contacted our dental association, and they are planning to put the Issue Paper in their newsletter, just like Michigan people have already done. Fortunately, in Oregon, the dental association has a recycling program so that dentists can get rid of their used or damaged vests and things like that, so that they aren't going to be in circulation. I also have shared the Issue Paper with the manufacturer, and they indicated that they will be putting up that information.

It may be a subset of the longer paper. I created a smaller or a more direct version that would apply to the distributors or the customers of the company describing the situation, what the hazards are and why using items like this for therapy simply should not be done. And they indicated that they would be putting it up on their Website. They're having their Website revamped right now, and the indication was that it would be up within a week or so.

It's my understanding, Mr. Leiker, that weighted therapy vests provide proprioceptive input for children with Sensory Integration Disorders and that proprioceptive input can have a calming and organizing effect on the nervous system. Do you know of safe alternatives that can be used that do not contain dangerous lead?

Richard Leiker: Well, that is exactly what the Issue Paper states, and then not being expert in the area, but talking to the people, both with the medical program people and the people in the Department of Education, their opinion is that using weighted therapy can certainly be helpful in some situations, and that using any kind of hazardous material, including lead, is not an appropriate thing to do. And that's why it's important to get the information out that anything containing lead or other hazardous substances for therapy like this simply should not be occurring.

Right, right. And that goes for all children, and especially children with autism who have impaired detoxification

capabilities, so we thank you for getting this information out. Do you think that it would be the ethical thing to do on the part of the manufacturer to find out from each of its distributors all non-medical destinations to which these lead-containing or similar products were shipped and send a notification or recall?

I believe that it is appropriate to find out who has purchased items like this for weight treatment. Certainly, it would be very appropriate to try to and find out, notify the parents who have purchased items like this and make sure that those are removed from use by people.

Absolutely. Do you think that we need to get information about the situation out on a national level?

Oh, well, we have – I think it's very appropriate to do that. I've actually sent the version of our Issue Paper to CDC to see whether they have a venue for getting the information out through CDC—so that they may be looking into the issue itself.

Very good. Mr. Leiker and Miss Hudson, what should parents do if they have this product in their house or around their child?

Well, one of the first things is stop using it, and in many instances, if they have an item like that, there may be a recycling program where they could drop it off. It depends from state to state, or maybe even city to city what options are available to people. But, stop using it immediately, and if they purchased it from someone, contact that distributor or seller and see if they will take that item back.

And, Miss Hudson, do you have anything to add to that?

I would also contact a local health department to determine if any kind of home investigation is warranted, or at the very least, have children who might have used these therapeutic weighted products tested for lead. And then, get the public health response prompted by the results of those tests.

Richard Leiker: Yes, I would agree with Sharon – that's certainly a piece that I didn't mention. If you're concerned that your child has been using an item like that, it would be very appropriate to get a blood lead test for your child.

All right, and how long does lead persist in the blood after exposure?

Sharon Hudson: About a month to six weeks, and – but, if exposure is ongoing, then, of course, lead can be measured in the blood as long as there's an exposure occurring.

All right, and does –

Richard Leiker: And if the child has long-term exposure and some of that lead is stored, it may take years for all of the lead to come back out of the body – usually coming out from the bones.

Now, Lois, you also had hair testing done on Toni Marie?

Sharon Hudson: No. No, that's not at all –

Lois Smith: She was discussing that we had had some hair testing done on Toni Marie through Cook County Hospital

Sharon Hudson: Yes.

Lois Smith: Test were run for antimony and cadmium and bismuth.

Sharon Hudson: For a lab, hair is not an appropriate biomarker. Too many other things can affect the results, so the only biological testing that's recommended for determining true lead exposure is a blood lead test.

Lois Smith: Right, and also you can do a porphyrins testing, can't you, to see if –

Sharon Hudson: Well, if the lead level is elevated. I think protoporphyrin would be an appropriate thing to do. But, not so common as just a simple blood lead level.

Would anybody like to make any further comments, Kevin McNeill?

Richard Leiker: Hair testing, urine testing, or saliva testing for lead are simply not good mechanisms for determining someone's lead level. Blood lead is the really the gold standard and the only way of being sure what a person's current blood – lead level is.

All right, and Lois, had you made a comment at some point that if a child who has been exposed to this product, presents to the emergency room, you would hope they would do a blood lead level?

I would hope so. I would think that if a child presented at the emergency room with gastrointestinal distress, a lot of times blood lead levels would be overlooked. It wouldn't be something that would be done in the first testing, especially in an older child. A lot of times, they don't perform blood lead levels after the age of three, and that's the other thing that really, I feel, needs to change. A lot of these children with autism, they're pica. It's a consistent disorder. It's something that doesn't go away, and because of that, they're always at high risk for toxic exposures, whether it is lead or what have you. They need this ongoing testing just to make sure they're not being exposed through their pica.

Sharon Hudson: The last child's death from lead poisoning in the United States was a four-year-old, and his exposure was through a piece of jewelry.

Lois Smith: Right.

Sharon Hudson: His symptoms on presenting to the emergency room were gastrointestinal, and there was absolutely no in-depth suspicion that his problem was lead poisoning.

Oh, my.

Lois Smith: And yet, what was in that charm that he swallowed, Sharon?

Sharon Hudson: Oh, it was almost 100 percent lead.

Lois Smith: Oh, exactly, but let's say that the fabric covering on these blankets was somehow corrupted, and we know that autistic children constantly, they'll chew through their shirt –

Sharon Hudson: Well, yes.

Lois Smith: – or they'll chew through many, many different items. So, if they chewed through the fabric covering, they would have access to a lot more lead than what was in that lead charm. So that's my concern: if they corrupt that covering and they get to that massive amount of lead underneath, they're going to present to the emergency with symptomatic lead poisoning, but most doctors would never suspect this.

Sharon Hudson: Exactly.

Lois Smith: And I don't think that with an exposure like that you would have enough time to immediately become anemic, and so it may be that the poisoning is overlooked, and that child could pass away and we would never know. It would be diagnosed that the child died from gastroenteritis – not from lead poisoning.

Sharon Hudson: Low-level lead exposure typically has no symptoms at all.

Lois Smith: Right, but if a child corrupted the blanket and got a massive dose of lead, they would then have symptomatic lead poisoning, which is very rare, and so when you present to the emergency room, it's not going to be the first thing on a doctor's mind.

Sharon Hudson: Right—the physicians will opt for the common diagnosis—as they should.

Lois Smith: Right.

Sharon Hudson: They'll look for zebras. You look for horses.

Lois Smith: Exactly, but some people now in America have these zebras and horses living in their homes.

Sharon Hudson: Yes.

Lois Smith: And so, that's just another fear is that the parents that are out there with these blankets in their home are, obviously, unaware of the danger they're putting their child in. When that child all of a sudden gets desperately ill and has

severe gastrointestinal distress, and they run them to the emergency room. If the parents are not thinking that the blanket is a dangerous product, it's probably not something they're going to refer to the physician, so –

Sharon Hudson: Exactly right.

Lois Smith: So, that's my big fear: when we're talking about alerting schools and alerting different organizations, that parents with autistic children get so busy, they don't go back and check Websites from where they bought things.

Sharon Hudson: Sure.

Lois Smith: And at the same time, parents see their children's therapists once every blue moon. These therapists work with our children while they're in school, so parents might not get that information that their child might have a dangerous item at home.

Sharon Hudson: Yes. We would want any distributor or manufacturer to be forthcoming about corresponding with individuals, families, and distributors that may have received hazardous items as well as any knowledge about the hazards of using such items.

Absolutely, Sharon, that's a wonderful point, and I thank you for making it, and I think on that point, I'd like to close, and I'd like to thank all of you—Lois Smith, Kevin McNeill, Sharon Hudson and Richard Leiker—for joining us today and providing this valuable informational service to protect children and help their families. To our listeners, you can see documentation related to this matter, including the lead test results, at www.autismone.org/radio/?radio=leadblanket. And if you go to the autismone.org/radio Website, it's a link at the bottom left hand corner, if that makes it easier, and thank you to our listeners and to our guests for being with us here at Autism One Radio.